

## **RAW SEQUENCE LISTING**

**The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.**

Application Serial Number: 10/578,401  
Source: TEWJP  
Date Processed by STIC: 5/15/06

***ENTERED***



IFWP

## RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/578,401

DATE: 05/15/2006

TIME: 09:48:27

Input Set : A:\seqlst.txt  
 Output Set: N:\CRF4\05152006\J578401.raw

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4 <110> APPLICANT: Long, Li
5      Luqman, Mohammad
6      Yabannavar, Asha
7      Zaror, Isabel
9 <120> TITLE OF INVENTION: Methods of Therapy for B Cell-Related
10     Cancers
12 <130> FILE REFERENCE: PP22244.002 (284270)
C--> 14 <140> CURRENT APPLICATION NUMBER: US/10/578,401
C--> 14 <141> CURRENT FILING DATE: 2006-05-03
14 <150> PRIOR APPLICATION NUMBER: 60/613,885
15 <151> PRIOR FILING DATE: 2004-09-28
17 <150> PRIOR APPLICATION NUMBER: 60/565,710
18 <151> PRIOR FILING DATE: 2004-04-27
20 <150> PRIOR APPLICATION NUMBER: 60/525,579
21 <151> PRIOR FILING DATE: 2003-11-26
23 <150> PRIOR APPLICATION NUMBER: 60/517,337
24 <151> PRIOR FILING DATE: 2003-11-04
26 <160> NUMBER OF SEQ ID NOS: 12
28 <170> SOFTWARE: FastSEQ for Windows Version 4.0
30 <210> SEQ ID NO: 1
31 <211> LENGTH: 720
32 <212> TYPE: DNA
33 <213> ORGANISM: Artificial Sequence
35 <220> FEATURE:
36 <223> OTHER INFORMATION: Coding sequence for light chain of CHIR-12.12
37     human anti-CD40 antibody
W--> 40 <221> NAME/KEY: CDS
41 <222> LOCATION: (1)...(720)
W--> 43 <400> 1
44 atg gcg ctc cct gct cag ctc ctg ggg ctg cta atg ctc tgg gtc tct    48
45 Met Ala Leu Pro Ala Gln Leu Leu Gly Leu Leu Met Leu Trp Val Ser
46     1           5           10          15
48 gga tcc agt ggg gat att gtg atg act cag tct cca ctc tcc ctg acc    96
49 Gly Ser Ser Gly Asp Ile Val Met Thr Gln Ser Pro Leu Ser Leu Thr
50     20          25          30
52 gtc acc cct gga gag ccg gcc tcc atc tcc tgc agg tcc agt cag agc   144
53 Val Thr Pro Gly Glu Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser
54     35          40          45
56 ctc ctg tat agt aat gga tac aac tat ttg gat tgg tac ctg cag aag   192
57 Leu Leu Tyr Ser Asn Gly Tyr Asn Tyr Leu Asp Trp Tyr Leu Gln Lys
58     50          55          60
60 cca ggg cag tct cca cag gtc ctg atc tct ttg ggt tct aat cgg gcc   240
61 Pro Gly Gln Ser Pro Gln Val Leu Ile Ser Leu Gly Ser Asn Arg Ala

```

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62	65	70	75	80													
64	tcc	ggg	gtc	cct	gac	agg	ttc	agt	ggc	agt	gga	tca	ggc	aca	gat	ttt	288
65	Ser	Gly	Val	Pro	Asp	Arg	Phe	Ser	Gly	Ser	Gly	Ser	Gly	Thr	Asp	Phe	
66																	95
68	aca	ctg	aaa	atc	agc	aga	gtg	gag	gct	gag	gat	gtt	ggg	gtt	tat	tac	336
69	Thr	Leu	Lys	Ile	Ser	Arg	Val	Glu	Ala	Glu	Asp	Val	Gly	Val	Tyr	Tyr	
70																	110
72	tgc	atg	caa	gct	cga	caa	act	cca	ttc	act	ttc	ggc	cct	ggg	acc	aaa	384
73	Cys	Met	Gln	Ala	Arg	Gln	Thr	Pro	Phe	Thr	Phe	Gly	Pro	Gly	Thr	Lys	
74																	125
76	gtg	gat	atc	aga	cga	act	gtg	gct	gca	cca	tct	gtc	ttc	atc	ttc	ccg	432
77	Val	Asp	Ile	Arg	Arg	Thr	Val	Ala	Ala	Pro	Ser	Val	Phe	Ile	Phe	Pro	
78																	140
80	cca	tct	gat	gag	cag	ttg	aaa	tct	gga	act	gcc	tct	gtt	gtg	tgc	ctg	480
81	Pro	Ser	Asp	Glu	Gln	Leu	Lys	Ser	Gly	Thr	Ala	Ser	Val	Val	Cys	Leu	
82	145																160
84	ctg	aat	aac	ttc	tat	ccc	aga	gag	gcc	aaa	gta	cag	tgg	aag	gtg	gat	528
85	Leu	Asn	Asn	Phe	Tyr	Pro	Arg	Glu	Ala	Lys	Val	Gln	Trp	Lys	Val	Asp	
86																	175
88	aac	gcc	ctc	caa	tcc	ggt	aac	tcc	cag	gag	agt	gtc	aca	gag	cag	gac	576
89	Asn	Ala	Leu	Gln	Ser	Gly	Asn	Ser	Gln	Glu	Ser	Val	Thr	Glu	Gln	Asp	
90																	190
92	agc	aag	gac	agc	acc	tac	agc	ctc	agc	acc	ctg	acg	ctg	agc	aaa	624	
93	Ser	Lys	Asp	Ser	Thr	Tyr	Ser	Leu	Ser	Ser	Thr	Leu	Thr	Leu	Ser	Lys	
94																	205
96	gca	gac	tac	gag	aaa	cac	aaa	gtc	tac	gcc	tgc	gaa	gtc	acc	cat	cag	672
97	Ala	Asp	Tyr	Glu	Lys	His	Lys	Val	Tyr	Ala	Cys	Glu	Val	Thr	His	Gln	
98																	220
100	ggc	ctg	agc	tcg	ccc	gtc	aca	aag	agc	ttc	aac	agg	gga	gag	tgt	tag	720
101	Gly	Leu	Ser	Ser	Pro	Val	Thr	Lys	Ser	Phe	Asn	Arg	Gly	Glu	Cys	*	
102	225																235
106	<210>	SEQ	ID	NO:	2												
107	<211>	LENGTH:	239														
108	<212>	TYPE:	PRT														
109	<213>	ORGANISM:	Artificial Sequence														
111	<220>	FEATURE:															
112	<223>	OTHER INFORMATION:	Light chain of CHIR-12.12 human anti-CD40 antibody														
114	<400>	SEQUENCE:	2														
115	Met	Ala	Leu	Pro	Ala	Gln	Leu	Leu	Gly	Leu	Leu	Met	Leu	Trp	Val	Ser	
116	1																15
117	Gly	Ser	Ser	Gly	Asp	Ile	Val	Met	Thr	Gln	Ser	Pro	Leu	Ser	Leu	Thr	
118																	30
119	Val	Thr	Pro	Gly	Glu	Pro	Ala	Ser	Ile	Ser	Cys	Arg	Ser	Ser	Gln	Ser	
120																	45
121	Leu	Leu	Tyr	Ser	Asn	Gly	Tyr	Asn	Tyr	Leu	Asp	Trp	Tyr	Leu	Gln	Lys	
122																	60
123	Pro	Gly	Gln	Ser	Pro	Gln	Val	Leu	Ile	Ser	Leu	Gly	Ser	Asn	Arg	Ala	
124	65																80
125	Ser	Gly	Val	Pro	Asp	Arg	Phe	Ser	Gly	Ser	Gly	Thr	Asp	Phe			

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Input Set : A:\seqlst.txt  
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126           85           90           95
127 Thr Leu Lys Ile Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr
128           100          105          110
129 Cys Met Gln Ala Arg Gln Thr Pro Phe Thr Phe Gly Pro Gly Thr Lys
130           115          120          125
131 Val Asp Ile Arg Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro
132           130          135          140
133 Pro Ser Asp Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu
134 145           150          155          160
135 Leu Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp
136           165          170          175
137 Asn Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp
138           180          185          190
139 Ser Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys
140           195          200          205
141 Ala Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln
142           210          215          220
143 Gly Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
144 225           230          235
147 <210> SEQ ID NO: 3
148 <211> LENGTH: 2016
149 <212> TYPE: DNA
150 <213> ORGANISM: Artificial Sequence
152 <220> FEATURE:
153 <223> OTHER INFORMATION: Coding sequence for heavy chain of CHIR-12.12
154     human anti-CD40 antibody (with introns)
157 <400> SEQUENCE: 3
158 atggagtttggctgagctggttttccttgttgtatatttaagagggtgtccagtgtcag 60
159 gtgcagttggtggagtctggggaggcggtgtccagcctggaggtccctgagactctcc 120
160 tgtgcagcccttggattcaccttcagtagctatggcatgcactgggtccgcaggctcca 180
161 ggcaggggcgtggatgggtggcagttataatcatatgaggaaagtaatagataccatgca 240
162 gactccgtgaaaggccgattcaccatctccagagacaattccaagatcacgcttatctg 300
163 caaatgaacagcctcagaactgaggacacggtgtgtattactgtgcgagagatgggggt 360
164 atagcagcacctggcctgactctgggcaggaaacccctggtccccgtctccatcagca 420
165 agtaccaaggccccatccgtttcccccctggcggcgcta gcaagagacactctgggggc 480
166 acagcggcccgtggctgcctggcaaggac tactccccgaaaccggtgacggttcgtgg 540
167 aactcaggccgcctcaggacccgtgcacacctccggctgtcttacaatgtccatcggaa 600
168 ctctactcccctcaggcgtgtgtaccgtgcctccagcaacctggggcacccagacctac 660
169 atctgcaacgtgaatcacaagcccaacaccaggatggacaagagacttggagagg 720
170 ccagcacaggagggtgtctgtgaaagccaggctcagcgctctgcctggacgc 780
171 tcccggtatgcaggccatgtccaggccagcaaggcaggccgtctgtccatcc 840
172 gaggcctctgtccgcctccatgtctcgaggagggtcttgcgtttttcccccaggc 900
173 tctgggcaggcacaggctatgtccctaaatccaggccctgcacacaaaggccgggtgc 960
174 tgggctcagaatgtccaaaggccatccgggtggaggaccctgcctgtaccatgtccacc 1020
175 ccaaaggccaactctccacatccctcactcgatccgtgcacccttctctccatcc 1080
176 aactcccaatcttctctcgatggcccaatcttgcacaaaactcacaatgtcccacc 1140
177 gtgcccaggtaagccagcccaggcctcgccatccagctcaaggcgggacaatgtccctag 1200
178 agtagcctgcatccaggacaggccccagccgggtgtgacacgtccaccatccatcttt 1260
179 cctcaggcaccatgtactccatggggaccgtcagtcttccatccatccatccatcc 1320

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180 acaccctcat gatctcccg acccctgagg tcacatgcgt ggtggtgac gtgagccacg 1380  
 181 aagaccctga ggtcaagttc aactggtacg tggacggcgt ggaggtgcat aatgccaaga 1440  
 182 caaagcccg gggaggagcag tacaacacca cgtaccgtgt ggtcagcgtc ctcaccgtcc 1500  
 183 tgcaccaggaa ctggctgaat gcgaaggagt acaagtcaa ggtctccaac aaagccctcc 1560  
 184 cagccccat cgagaaaacc atctccaaag ccaaagggtgg gaccctgtgg gtgcgagggc 1620  
 185 cacatggaca gaggccggct cggcccaccc tctgccctga gagtgaccgc tgtaccaacc 1680  
 186 tctgtcccta cagggcagcc cggagaacca caggtgtaca ccctgcccc atcccgagg 1740  
 187 gagatgacca agaaccaggc cagcctgacc tgcctggta aaggcttcta tcccagcgc 1800  
 188 atcgcctggg agtgggagag caatgggcaag cggagaaca actacaagac cacgcctccc 1860  
 189 gtgctggact ccgacggctc cttcttcctc tatagcaagc tcaccgtgga caagagcagg 1920  
 190 tggcagcagg ggaacgtctt ctcatgctcc gtgatgcatg aggctctgca caaccactac 1980  
 191 acgcagaaga gcctccctc gtctccgggt aataga 2016  
 193 <210> SEQ ID NO: 4  
 194 <211> LENGTH: 469  
 195 <212> TYPE: PRT  
 196 <213> ORGANISM: Artificial Sequence  
 198 <220> FEATURE:  
 199 <223> OTHER INFORMATION: Heavy chain of CHIR-12.12 human anti-CD40 antibody  
 201 <400> SEQUENCE: 4  
 202 Met Glu Phe Gly Leu Ser Trp Val Phe Leu Val Ala Ile Leu Arg Gly  
 203 1 5 10 15  
 204 Val Gln Cys Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln  
 205 20 25 30  
 206 Pro Gly Arg Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe  
 207 35 40 45  
 208 Ser Ser Tyr Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu  
 209 50 55 60  
 210 Glu Trp Val Ala Val Ile Ser Tyr Glu Glu Ser Asn Arg Tyr His Ala  
 211 65 70 75 80  
 212 Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Ile  
 213 85 90 95  
 214 Thr Leu Tyr Leu Gln Met Asn Ser Leu Arg Thr Glu Asp Thr Ala Val  
 215 100 105 110  
 216 Tyr Tyr Cys Ala Arg Asp Gly Gly Ile Ala Ala Pro Gly Pro Asp Tyr  
 217 115 120 125  
 218 Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly  
 219 130 135 140  
 220 Pro Ser Val Phe Pro Leu Ala Pro Ala Ser Lys Ser Thr Ser Gly Gly  
 221 145 150 155 160  
 222 Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val  
 223 165 170 175  
 224 Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe  
 225 180 185 190  
 226 Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val  
 227 195 200 205  
 228 Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val  
 229 210 215 220  
 230 Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Arg Val Glu Pro Lys  
 231 225 230 235 240

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TIME: 09:48:27

Input Set : A:\seqlst.txt  
Output Set: N:\CRF4\05152006\J578401.raw

232 Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu  
 233 245 250 255  
 234 Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr  
 235 260 265 270  
 236 Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val  
 237 275 280 285  
 238 Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val  
 239 290 295 300  
 240 Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser  
 241 305 310 315 320  
 242 Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu  
 243 325 330 335  
 244 Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala  
 245 340 345 350  
 246 Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro  
 247 355 360 365  
 248 Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln  
 249 370 375 380  
 250 Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala  
 251 385 390 395 400  
 252 Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr  
 253 405 410 415  
 254 Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu  
 255 420 425 430  
 256 Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser  
 257 435 440 445  
 258 Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser  
 259 450 455 460  
 260 Leu Ser Pro Gly Lys  
 261 465  
 264 <210> SEQ ID NO: 5  
 265 <211> LENGTH: 469  
 266 <212> TYPE: PRT  
 267 <213> ORGANISM: Artificial Sequence  
 269 <220> FEATURE:  
 270 <223> OTHER INFORMATION: Heavy chain of variant of CHIR-12.12 human  
 271 anti-CD40 antibody  
 274 <400> SEQUENCE: 5  
 275 Met Glu Phe Gly Leu Ser Trp Val Phe Leu Val Ala Ile Leu Arg Gly  
 276 1 5 10 15  
 277 Val Gln Cys Gln Val Gln Leu Val Glu Ser Gly Gly Val Val Gln  
 278 20 25 30  
 279 Pro Gly Arg Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe  
 280 35 40 45  
 281 Ser Ser Tyr Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu  
 282 50 55 60  
 283 Glu Trp Val Ala Val Ile Ser Tyr Glu Glu Ser Asn Arg Tyr His Ala  
 284 65 70 75 80  
 285 Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Ile

**VERIFICATION SUMMARY**

PATENT APPLICATION: US/10/578,401

DATE: 05/15/2006

TIME: 09:48:28

Input Set : A:\seqlst.txt

Output Set: N:\CRF4\05152006\J578401.raw

L:14 M:270 C: Current Application Number differs, Replaced Current Application No  
L:14 M:271 C: Current Filing Date differs, Replaced Current Filing Date  
L:40 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!  
L:43 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:1  
L:538 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:9  
L:639 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:11